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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/509,375

Applicant(s)

VARE ET AL.

Examiner

Pinkal R. Chokshi

Art Unit

2425

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24, 28-32 and 40-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24, 28-32 and 40-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB06)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 09/23/2010 with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Furthermore, Applicant alleges that Ikeda does not teach that the sub-tables have been split from a service information table. Examiner respectfully disagrees. The rejection is based on the combination of references, where Yuen discloses (col.6, lines 1-61) that the channel mapping information generated by the physical host is divided into multiple blocks, where each block includes a channel map table (sub-table) for a specific zip code and Ikeda discloses (col.7, lines 52-62) that the controller generates link information (mother table) that shows the program that is being broadcast in the service area and the programs that are being broadcast in adjacent service areas. Therefore, it renders the obviousness of the claim and it rebuts Applicant's argument. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

See the new rejection below.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1, 6, 7, 9-12, 17-22, 28, 29, 31, 32, and 40-45** are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,252,634 to Yuen et al (hereafter referenced as Yuen) in view of WO Publication 02/11328 to Ikeda et al. (hereafter US Patent 7,475,418 will be used as a certified translation) and US PG Pub 2005/0204385 to Sull et al (hereafter referenced as Sull).

Regarding **claim 1**, "a method comprising: establishing at least one service information table configured to enable an end user terminal to obtain transport streams transmitted over a digital broadcast network" reads on delivering the channel mapping information (service information) table, established at the physical host, that includes channel maps for all the television services offered by that physical host (col.3, lines 61-63; col.4, lines 19-26, 60-62) disclosed by Yuen and represented in Fig. 2.

As to "splitting, by a processor, the at least one service information table into sub-tables, wherein each sub-table identifies a certain transport stream, and wherein said certain transport stream comprises a local transport stream of a certain cell" Yuen discloses (col.6, lines 1-61) that the channel mapping information generated by the physical host is divided into multiple blocks, where

each block includes a channel map table (sub-table) for a specific zip code as represented in Figs. 5 and 6.

Yuen meets all the limitations of the claim except “establishing a mother table configured to maintain a sub-table of the certain transport stream and sub-tables of adjacent transport streams of the certain transport stream, wherein said adjacent transport streams comprise transport streams of at least one neighboring cell of said certain cell.” However, Ikeda discloses (col.7, lines 52-62) that the system controller generates link information (mother table), where link information shows the program that is being broadcast in the service area and the programs that are being broadcast in adjacent service areas as represented in Fig. 8. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify Yuen’s system by creating a program table for different service areas as taught by Ikeda in order to provide a continuous reception of a broadcast program/channel even when audience moves from a service area to another service area (col.2, lines 20-24).

Combination of Yuen and Ikeda meets all the limitations of the claim except “the mother table has an upper level hierarchy in comparison with the sub-tables.” However, Sull discloses (§0332) that the EIT included in the SI are divided into multiple sub-tables. Sull further discloses (§0085, §0276) the hierarchical tree structure belongs to a program/channel that’s included in the event information table, where nodes, for the channels, are divided into parent/child nodes and level 1 node (mother table) is higher than level 2 and 3

nodes (sub-tables) as represented in Fig. 2. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Yuen and Ikeda's systems by having a mother table higher than the child tables as taught by Sull in order to easily identify the programming/channels included in the child tables by analyzing a mother table.

Regarding **claim 6**, "a method wherein at least one headend equipment for a cell of the digital broadcast network performs the step of splitting" Yuen discloses (col.6, lines 1-30) that the cable company (head-end) is used to divide the table as represented in Fig. 6.

Regarding **claim 7**, "a method wherein an operator runs the at least one headend" Yuen discloses (col.6, lines 1-30) that the cable company (head-end) is used to divide the table as represented in Fig. 6.

Regarding **claim 9**, "a method further comprising building a local table based on the sub-table of the certain transport stream" Ikeda discloses (col.5, lines 27-32) that the transmitter transmits service list of the programs offered in the service area. In addition, same motivation is used as to reject claim 1.

Regarding **claim 10**, "a method wherein the mother table identifies an amount of the sub-tables" Ikeda discloses (col.7, lines 58-62) that the link

information shows the program of one service area and the adjacent service areas. In addition, same motivation is used as to reject claim 1.

Regarding **claim 11**, "a method wherein the mother table identifies an updating of the sub-table" Ikeda discloses (col.4, lines 33-38; col.7, lines 52-62) that the system controller controls the operation of each transmitter by generating link information of service areas based on the location of receiver. In addition, same motivation is used as to reject claim 1.

Regarding **claim 12**, "a method further comprising the step of updating the adjacent transport streams periodically about the sub-table" Ikeda discloses (col.4, lines 33-38; col.7, lines 52-62) that the system controller controls the operation of each transmitter by generating link information of service areas based on the location of receiver. In addition, same motivation is used as to reject claim 1.

Regarding **claim 17**, "a method further comprising the step of performing a handover function for the transport streams when a mobile end user terminal is moving from a cell of the certain transport stream to any adjacent transport stream" Ikeda discloses (col.4, lines 33-38) that when the receiver moves from one service area to another service area, broadcasting being transmitted is

switched from one transmitter to another as represented in Fig. 1. In addition, same motivation is used as to reject claim 1.

Regarding **claim 18**, "a method further comprising the step of performing a roaming function for the transport streams when a mobile end user terminal is moving from a cell of the certain transport stream to any adjacent transport stream" Ikeda discloses (col.4, lines 33-38) that when the receiver moves from one service area to another service area, broadcasting being transmitted is switched from one transmitter to another to maintain communication as represented in Fig. 1. In addition, same motivation is used as to reject claim 1.

Regarding **claim 19**, "a method wherein the certain transport stream comprises a local transport stream of a cell of the digital broadcast network" Ikeda discloses (col.4, lines 12-23) that the broadcast transmitted from each transmitter is digital broadcast. In addition, same motivation is used as to reject claim 1.

Regarding **claim 20**, "a method wherein the transport streams comprise MPEG transport streams" Ikeda discloses (col.7, lines 5-8) that the transport stream conforming to the MPEG-2 system. In addition, same motivation is used as to reject claim 1.

Regarding **claim 21**, "a method wherein the transport stream comprises transmission according to Digital Video Broadcasting" Ikeda discloses (col.4, lines 8-11; col.6, lines 43-54) that the system uses digital video broadcasting. In addition, same motivation is used as to reject claim 1.

Regarding **claim 22**, "a method wherein the transport stream comprises a terrestrial digital video broadcasting (DVB-T)" Ikeda discloses (col.3, lines 58-66) that the transmission occurs according to digital terrestrial broadcasts. In addition, same motivation is used as to reject claim 1.

Regarding **claim 28**, "a method comprising: receiving a broadcast transmission" reads on delivering the channel mapping information (service information) table, established at the physical host, that includes channel maps for all the television services offered by that physical host (col.3, lines 61-63; col.4, lines 19-26, 60-62) disclosed by Yuen and represented in Fig. 2.

As to "discovering a mother table from the broadcast transmission, the mother table announcing a set of sub-tables each sub-table identifying a local transport stream of certain cell, wherein the transport streams indicated in the mother table comprise adjacent transport streams to each other so that said adjacent transport streams comprise transport streams of at least one neighboring cell of said certain cell" Yuen discloses (col.6, lines 1-61) that the channel mapping information generated by the physical host is divided into

multiple blocks, where each block includes a channel map table (sub-table) for a specific zip code as represented in Figs. 5 and 6.

Yuen meets all the limitations of the claim except “discovering a mother table from the broadcast transmission, the mother table announcing a set of sub-tables each sub-table identifying a local transport stream of certain cell, wherein the transport streams indicated in the mother table comprise adjacent transport streams to each other so that said adjacent transport streams comprise transport streams of at least one neighboring cell of said certain cell.” However, Ikeda discloses (col.7, lines 52-62) that the system controller generates link information (mother table), where link information shows the program that is being broadcast in the service area and the programs that are being broadcast in adjacent service areas as represented in Fig. 8. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify Yuen’s system by creating a program table for different service areas as taught by Ikeda in order to provide a continuous reception of a broadcast program/channel even when audience moves from a service area to another service area (col.2, lines 20-24).

Combination of Yuen and Ikeda meets all the limitations of the claim except “the mother table has an upper level hierarchy in comparison with the sub-tables.” However, Sull discloses (§0332) that the EIT included in the SI are divided into multiple sub-tables. Sull further discloses (§0085, §0276) the hierarchical tree structure belongs to a program/channel that’s included in the event information table, where nodes, for the channels, are divided into

parent/child nodes and level 1 node (mother table) is higher than level 2 and 3 nodes (sub-tables) as represented in Fig. 2. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Yuen and Ikeda's systems by having a mother table higher than the child tables as taught by Sull in order to easily identify the programming/channels included in the child tables by analyzing a mother table.

Regarding **claim 29**, "an apparatus comprising: a processor and a memory storing executable instructions" reads on the television receiver that includes a microcontroller and a memory that stores information (col.5, lines 26-67) disclosed by Yuen and represented in Fig. 4 (elements 44, 50).

As to "the memory and the executable instructions together with the processor, cause the apparatus to at least: receive a broadcast transmission" reads on delivering the channel mapping information (service information) table, established at the physical host, that includes channel maps for all the television services offered by that physical host (col.3, lines 61-63; col.4, lines 19-26, 60-62) disclosed by Yuen and represented in Fig. 2.

As to "discover a mother table from the broadcast transmission, the mother table announcing a set of sub-tables each sub-table identifying a local transport stream of a certain cell, wherein the transport streams indicated in the mother table comprise adjacent transport streams to each other so that said adjacent transport streams comprise transport streams of at least one

neighboring cell of said certain cell" Yuen discloses (col.6, lines 1-61) that the channel mapping information generated by the physical host is divided into multiple blocks, where each block includes a channel map table (sub-table) for a specific zip code as represented in Figs. 5 and 6.

Yuen meets all the limitations of the claim except "discover a mother table from the broadcast transmission, the mother table announcing a set of sub-tables each sub-table identifying a local transport stream of a certain cell, wherein the transport streams indicated in the mother table comprise adjacent transport streams to each other so that said adjacent transport streams comprise transport streams of at least one neighboring cell of said certain cell." However, Ikeda discloses (col.7, lines 52-62) that the system controller generates link information (mother table), where link information shows the program that is being broadcast in the service area and the programs that are being broadcast in adjacent service areas as represented in Fig. 8. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify Yuen's system by creating a program table for different service areas as taught by Ikeda in order to provide a continuous reception of a broadcast program/channel even when audience moves from a service area to another service area (col.2, lines 20-24).

Combination of Yuen and Ikeda meets all the limitations of the claim except "the mother table has an upper level hierarchy in comparison with the sub-tables." However, Sull discloses (§0085, §0332) that the EIT included in the SI are divided into multiple sub-tables. Sull further discloses (§0276) the

hierarchical tree structure for event information table, where nodes are divided into parent/child nodes and level 1 node (mother table) is higher than level 2 and 3 nodes (sub-tables) as represented in Fig. 2. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Yuen and Ikeda's systems by having a mother table higher than the child tables as taught by Sull in order to easily identify the programming/channels included in the child tables by analyzing a mother table.

Regarding **claim 31**, "the apparatus wherein the receiver comprises a wireless receiver for receiving the transport stream" Ikeda discloses (abstract and col.4, lines 46-49) that the transport stream is received by the mobile receiver. In addition, same motivation is used as to reject claim 29.

Regarding **claim 32**, "the apparatus wherein the end user terminal comprises a broadcast cellular mobile end user terminal" Ikeda discloses (abstract and col.4, lines 46-49) that the transport stream is received by the mobile receiver. In addition, same motivation is used as to reject claim 29.

Regarding **claim 40**, "an apparatus comprising: at least one head-end configured to establish at least one service information table for enabling an end user terminal to obtain the transport streams" reads on delivering the channel mapping information (service information) table, established at the physical host,

that includes channel maps for all the television services offered by that physical host (col.3, lines 61-63; col.4, lines 19-26, 60-62) disclosed by Yuen and represented in Fig. 2.

As to "the at least one headend further configured to split the at least one service information table into sub-tables for establishing a mother table" Yuen discloses (col.6, lines 1-61) that the channel mapping information generated by the physical host is divided into multiple blocks, where each block includes a channel map table (sub-table) for a specific zip code as represented in Figs. 5 and 6.

Yuen meets all the limitations of the claim except "wherein each sub-table identifies a transport stream of a certain headend and wherein said transport stream comprises a local transport stream of a certain cell, and wherein the mother table identifies the transport stream of the certain headend and transport streams of adjacent headends to the certain headend, wherein the transport streams of the adjacent headends comprise transport streams of neighboring cells of said certain cell." However, Ikeda discloses (col.7, lines 52-62) that the system controller generates link information (mother table), where link information shows the program that is being broadcast in the service area and the programs that are being broadcast in adjacent service areas as represented in Fig. 8. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify Yuen's system by creating a program table for different service areas as taught by Ikeda in order to provide a

continuous reception of a broadcast program/channel even when audience moves from a service area to another service area (col.2, lines 20-24).

Combination of Yuen and Ikeda meets all the limitations of the claim except "the mother table has an upper level hierarchy in comparison with the sub-tables." However, Sull discloses (§§0085, §0332) that the EIT included in the SI are divided into multiple sub-tables. Sull further discloses (§0276) the hierarchical tree structure for event information table, where nodes are divided into parent/child nodes and level 1 node (mother table) is higher than level 2 and 3 nodes (sub-tables) as represented in Fig. 2. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Yuen and Ikeda's systems by having a mother table higher than the child tables as taught by Sull in order to easily identify the programming/channels included in the child tables by analyzing a mother table.

Regarding **claim 41**, "a memory storing computer executable instructions that, when executed, cause a computer to at least perform: establishing at least one service information table configured to enable an end user terminal to obtain the transport streams configured to be transmitted by a digital broadcast network" reads on delivering the channel mapping information (service information) table, established at the physical host, that includes channel maps for all the television services offered by that physical host (col.3, lines 61-63; col.4, lines 19-26, 60-62) disclosed by Yuen and represented in Fig. 2.

As to "splitting the at least one service information table into sub-tables, wherein each sub-table identifies a certain transport stream, and wherein said transport stream comprises a local transport stream of a certain cell" Yuen discloses (col.6, lines 1-61) that the channel mapping information generated by the physical host is divided into multiple blocks, where each block includes a channel map table (sub-table) for a specific zip code as represented in Figs. 5 and 6.

Yuen meets all the limitations of the claim except "establishing a mother table configured to maintain a sub-table of the certain transport stream and sub-tables of adjacent transport streams of the certain transport stream, wherein said adjacent transport streams comprise transport streams of at least one neighboring cell of said certain cell." However, Ikeda discloses (col.7, lines 52-62) that the system controller generates link information (mother table), where link information shows the program that is being broadcast in the service area and the programs that are being broadcast in adjacent service areas as represented in Fig. 8. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify Yuen's system by creating a program table for different service areas as taught by Ikeda in order to provide a continuous reception of a broadcast program/channel even when audience moves from a service area to another service area (col.2, lines 20-24).

Combination of Yuen and Ikeda meets all the limitations of the claim except "a memory storing computer-executable instructions." However, Sull

discloses (¶0158) that the computer program is embedded in a memory. As to “the mother table has an upper level hierarchy in comparison with the sub-tables” Sull discloses (¶0085, ¶0332) that the EIT included in the SI are divided into multiple sub-tables. Sull further discloses (¶0276) the hierarchical tree structure for event information table, where nodes are divided into parent/child nodes and level 1 node (mother table) is higher than level 2 and 3 nodes (sub-tables) as represented in Fig. 2. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Yuen and Ikeda's systems by having a mother table higher than the child tables as taught by Sull in order to easily identify the programming/channels included in the child tables by analyzing a mother table.

Regarding **claim 42**, “the memory wherein the computer executable instructions, when executed, cause the computer to build a local table based on the sub-table of the certain transport stream” Ikeda discloses (col.5, lines 27-32) that the transmitter transmits service list of the programs offered in the service area. In addition, same motivation is used as to reject claim 41.

Regarding **claim 43**, “the memory wherein the computer executable instructions, when executed, cause the computer perform a handover function for the transport streams when a mobile end user terminal is moving from a cell of the certain transport stream to any adjacent transport stream” Ikeda discloses

(col.4, lines 33-38) that when the receiver moves from one service area to another service area, broadcasting being transmitted is switched from one transmitter to another as represented in Fig. 1. In addition, same motivation is used as to reject claim 41.

Regarding **claim 44**, "the memory wherein the computer executable instructions, when executed, cause the computer perform a roaming function for the transport streams when a mobile end user terminal is moving from a cell of the certain transport stream to any adjacent transport stream" Ikeda discloses (col.4, lines 33-38) that when the receiver moves from one service area to another service area, broadcasting being transmitted is switched from one transmitter to another to maintain communication as represented in Fig. 1. In addition, same motivation is used as to reject claim 41.

Regarding **claim 45**, "a memory storing computer-executable instructions that, when executed, cause a computer to at least perform: receiving a broadcast transmission" reads on delivering the channel mapping information (service information) table, established at the physical host, that includes channel maps for all the television services offered by that physical host (col.3, lines 61-63; col.4, lines 19-26, 60-62) disclosed by Yuen and represented in Fig. 2.

As to "discovering a mother table from the broadcast transmission, the mother table announcing a set of sub-tables, each sub-table identifying a local

transport stream of a certain cell, wherein the mother table has an upper level hierarchy in comparison with the sub-tables, wherein the transport streams indicated in the mother table comprise adjacent transport streams to each other so that said adjacent transport streams comprise transport streams of at least one neighboring cell of said certain cell" Yuen discloses (col.6, lines 1-61) that the channel mapping information generated by the physical host is divided into multiple blocks, where each block includes a channel map table (sub-table) for a specific zip code as represented in Figs. 5 and 6.

Yuen meets all the limitations of the claim except "discovering a mother table from the broadcast transmission, the mother table announcing a set of sub-tables each sub-table identifying a local transport stream of certain cell, wherein the transport streams indicated in the mother table comprise adjacent transport streams to each other so that said adjacent transport streams comprise transport streams of at least one neighboring cell of said certain cell." However, Ikeda discloses (col.7, lines 52-62) that the system controller generates link information (mother table), where link information shows the program that is being broadcast in the service area and the programs that are being broadcast in adjacent service areas as represented in Fig. 8. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify Yuen's system by creating a program table for different service areas as taught by Ikeda in order to provide a continuous reception of a broadcast program/channel even when audience moves from a service area to another service area (col.2, lines 20-24).

Combination of Yuen and Ikeda meets all the limitations of the claim except "a memory storing computer-executable instructions." However, Sull discloses (§158) that the computer program is embedded in a memory. As to "the mother table has an upper level hierarchy in comparison with the sub-tables" Sull discloses (§085, §332) that the EIT included in the SI are divided into multiple sub-tables. Sull further discloses (§276) the hierarchical tree structure for event information table, where nodes are divided into parent/child nodes and level 1 node (mother table) is higher than level 2 and 3 nodes (sub-tables) as represented in Fig. 2. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Yuen and Ikeda's systems by having a mother table higher than the child tables as taught by Sull in order to easily identify the programming/channels included in the child tables by analyzing a mother table.

4. **Claims 2-5, 8 and 46** are rejected under 35 U.S.C. 103(a) as being unpatentable over Yuen in view of Ikeda and Sull as applied to claims 1 and 45 above, and further in view of EP Patent 0917355 A1 to Szucs et al (hereafter referenced as Szucs).

Regarding **claim 2**, "a method wherein the sub-table comprises a for loop of the at least one service information table" Yuen discloses (col.16, lines 38-48) that the channel scan occurs in loop as represented in Fig. 18. However, Szucs discloses (§024) that the service description table includes a service loop. Therefore, it would have been obvious to one of the ordinary skills in the art at

the time of the invention to modify Yuen, Ikeda and Sull's systems by using a for loop SI as taught by Szucs in order to repeatedly receive the table to know the sequencing of each table.

Regarding **claim 3**, "a method wherein the for loop comprises a section of the at least one service information table" Szucs discloses (§10024) that the event loop comprises event 1 and event 2 which is part of service description table. In addition, same motivation is used as rejection to claim 2.

Regarding **claim 4**, "a method wherein the for loop comprises a cycle of for loops of the at least one service information table" Szucs discloses (§10024) that the event loop comprises a checksum of a cyclic redundancy check CRC. In addition, same motivation is used as rejection to claim 2.

Regarding **claim 5**, "a method wherein the for loop comprises a transport stream identifier for uniquely identifying the certain transport stream of the sub-table" Szucs discloses (§10024) that the newly generated transport stream includes newly generated section header data, to identify the stream, and newly generated transmission information loop. In addition, same motivation is used as rejection to claim 2.

Regarding **claim 8**, "a method wherein at least one the service information table comprises a Bouquet Association Table" Szucs discloses (§0019) that the transport stream analyzer analyzes program association table which is a part of service information. In addition, same motivation is used as rejection to claim 2.

Regarding **claim 46**, combination of Yuen, Ikeda and Sull meets all the limitations of the claim except "the memory of claim 45, wherein at least one of the sub-tables are adapted to be retransmitted without any further modification" However, Szucs discloses (§0028) that when streams are being passed onto network, the program map table is also being transmitted through without any modification. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Yuen, Ikeda, and Sull's systems by transmitting sub-table without modification as taught by Szucs in order to transmit only those channels that belongs to the specific areas.

5. **Claims 13, 14, 23, and 30** are rejected under 35 U.S.C. 103(a) as being unpatentable over Yuen in view of Ikeda and Sull as applied to claim 1 above, and further in view of US Patent 6,401,242 to Eyer et al (hereafter referenced as Eyer).

Regarding **claim 13**, "a method further comprising the step of re-transmitting the sub-table to the adjacent transport streams" Ikeda discloses (col.4, lines 33-38; col.7, lines 52-62) that the system controller controls the operation of each transmitter by generating link information of service areas

based on the location of receiver. However, combination of Yuen, Ikeda and Sull does not explicitly teach that the table is re-transmitted. Eyer discloses (col.20, lines 54-64) that the tables from region one and two are transmitted and combined together to carry the schedules/listings. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify Yuen, Ikeda and Sull 's systems by transmitting table as taught by Eyer in order to allow the communication of scheduling information for television programming and also to be economical in terms of communication bandwidth (col.2, lines 61-62).

Regarding **claim 14**, "a method wherein the step of re-transmitting comprises individual re-transmitting" Eyer discloses (col.21, lines 8-12) that when a new data bundle transmitted, it's added to the bundle memory. In addition, same motivation is used as to reject claim 13.

Regarding **claim 23**, "a method wherein the transport stream comprises multicast" Eyer discloses (col.5, lines 4-5) that the channel map data is multicast addressed to decoders. In addition, same motivation is used as to reject claim 13.

Regarding **claim 30**, "the apparatus wherein the executable instructions, when executed, cause the apparatus to interact with a service provider providing

the transport stream" Eyer discloses (col.4, lines 64-68) that the channel map data table received from broadcast network provider is provided to receiver and receiver communicate with head-end by entering a channel number. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify Yuen, Ikeda and Sull 's systems by transmitting table as taught by Eyer in order to allow the communication of scheduling information for television programming and also to be economical in terms of communication bandwidth (col.2, lines 61-62).

6. **Claim 15** is rejected under 35 U.S.C. 103(a) as being unpatentable over Yuen in view of Ikeda, Sull and Eyer as applied to claim 13 above, and further in view of US Patent 5,671,219 to Jensen et al (hereafter referenced as Jensen).

Regarding **claim 15**, combination of Yuen, Ikeda, Sull and Eyer meets all the limitations of the claim except "a method wherein the step of re-transmitting comprises periodic re-transmitting." However, Jensen discloses (col.13, lines 45-50) that each user station periodically receives air channel in sequence. Therefore, it would have been obvious to one ordinary skills in the art at the time of the invention to transmit stream/channel periodically as taught by Jensen in order to maintain or establish communication path between user device and cell/tower (col.1, lines 25-26).

7. **Claim 16** is rejected under 35 U.S.C. 103(a) as being unpatentable over Yuen in view of Ikeda, Sull and Eyer as applied to claim 13 above, and further in view of Szucs.

Regarding **claim 16**, combination of Yuen, Ikeda, Sull and Eyer meets all the limitations of the claim except "a method wherein the sub-table is adapted to be retransmitted without any further modification of the sub-table." However, Szucs discloses (¶10028) that when streams are being passed onto network, the program map table is also being transmitted through without any modification. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Yuen, Ikeda, Sull and Eyer's systems by transmitting sub-table without modification as taught by Szucs in order to transmit only those channels that belongs to the specific areas.

8. **Claim 24** is rejected under 35 U.S.C. 103(a) as being unpatentable over Yuen in view of Ikeda and Sull as applied to claim 1 above, and further in view of US Patent 6,965,770 B2 to Walsh et al (hereafter referenced as Walsh).

Regarding **claim 24**, combination of Yuen, Ikeda and Sull meets all the limitations of the claim except "a method wherein the transport stream comprises unicast." However, Walsh discloses (col.3, line 7-9 and abstract) that the unicast network is used for transmitting content to end user terminal. Therefore, it would have been obvious to one ordinary skills in the art at the time of the invention to use streams with unicast as taught by Walsh in order to universally routed data across the Network which allows Network to run between two known endpoints.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US Patent 6,741,834 to Godwin

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pinkal R. Chokshi whose telephone number is (571) 270-3317. The examiner can normally be reached on Monday-Friday 8 - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian T. Pendleton can be reached on 571-272-7527. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Pinkal R. Chokshi/
Examiner, Art Unit 2425

/Brian T Pendleton/
Supervisory Patent Examiner, Art Unit 2425